

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference A30222 WO	FOR FURTHER ACTION	See item 4 below
International application No. PCT/GB2004/004030	International filing date (<i>day/month/year</i>) 22 September 2004 (22.09.2004)	Priority date (<i>day/month/year</i>) 23 September 2003 (23.09.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																								
2.	This REPORT consists of a total of 6 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 80%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 740 14 35</p>	<p>Date of issuance of this report 27 March 2006 (27.03.2006)</p> <p>Authorized officer Dorothee Mülhausen</p> <p>Telephone No. +41 22 338 87 40</p>
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Form PCT/IB/373 (January 2004)

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 08 FEB 2005

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To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/004030

International filing date (day/month/year)
22.09.2004

Priority date (day/month/year)
23.09.2003

International Patent Classification (IPC) or both national classification and IPC
H04Q11/04, H04M11/06, H04Q3/58

Applicant
BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and Industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004030

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004030

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4-10,13,15
	No: Claims	1-3,11,12,14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item VIII.

Although claims 1 and 15 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only in respect of the terminology used for the features (cf. "communications station" versus "telephone exchange" resp. "optical carriers" versus "optical transmission lines") of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since these two independent claims make it difficult, if not impossible, to determine the subject-matter for which protection is sought, and place undue burden on others seeking to establish the extent of protection.

Hence claims 1-15 do not meet the requirements of Article 6 PCT.

The subject-matter of claim 15 corresponds to that of claim 14 when dependent on claim 13. Claim 15 should therefore be omitted.

Re Item V.

The following documents are referred to in the remainder of this communication:

- D1 : US 2002/135844 A1 (SILBERMAN H ET AL) 26 September 2002 (2002-09-26)
- D2 : PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003
(2003-12-05) & JP 2003 224678 A (FUJITSU I-NETWORK SYSTEMS LTD), 8
August 2003 (2003-08-08)
- D3 : WO 02/45383 A2 (ESION NETWORKS INC) 6 June 2002 (2002-06-06)
- D4 : EP 0 917 392 A (NORTHERN TELECOM LIMITED) 19 May 1999 (1999-05-19)
- D5 : US 5 534 912 A (KOSTRESKI ET AL) 9 July 1996 (1996-07-09)
- D6 : US 2002/031113 A1 (DODDS D E ET AL) 14 March 2002 (2002-03-14)

1. Furthermore, the above-mentioned lack of clarity notwithstanding, the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT, and therefore the criteria of Article 33(1) PCT are not met.

The document D1 discloses (the references in parentheses applying to this document) *a communications network* (cf. Figure 3b) *comprising:*
- *a communications station* (cf. Central Office CO 301);

- *electrical transmission lines* (cf. "subscriber lines" resp. "legacy UTP lines") *connecting the communications station to user terminations* (cf. "subscribers" resp. their "premises", see paragraphs [0018] and [0036]);
- *data transmission means* (cf. the combination of DSLAM 300 and AFAR-C 302);
- *optical carriers* (cf. "subcarriers") *connecting the data transmission means to at least one interface* (cf. Street Cabinet 305), *located between the communications station and user terminations, for converting optical signals from an optical carrier into electrical signals for transmission over at least one of the electrical transmission lines* (cf. paragraphs [0027] and [0032]);
- *wherein, for each of a plurality of user terminations requiring data service:*
 - (a) *a dedicated one of said optical carriers is provided* (cf. paragraph [0027]: "... Each of the upstream signals from the subscriber's xTU-R modulates a separate subcarrier, ...");
 - (b) *the data transmission means comprises modulation means* (cf. the DSLAM 300) *for converting input data signals into output signals suitable for transmission over the electrical transmission lines, followed by means* (cf. the AFAR-C 302) *for modulating the output signals onto an optical signal* (cf. paragraph [0032]);
 - (c) *the interface* (cf. the Street Cabinet 305) *has optoelectrical conversion means* (cf. the AFAR-S 306) *arranged to recover said output signals and feed them to the electrical transmission line serving the relevant user termination* (cf. paragraph [0032]).

The subject-matter of claim 1 is therefore not new (Article 33(2) PCT).

A similar novelty objection can be made based on any of the other documents D2-D6, see the corresponding passages in the International Search Report.

2. Dependent claims 2-14 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT) and/or inventive step (Article 33(3) PCT), since these additional features concern obvious design measures and/or are already known from documents D1-D6.
The same applies to the independent method claim 15.